



PEO TSC VV&A DESIGNATION GUIDELINES

Charles E. Hays (Logicon, Inc.)

chays@logicon.com

(540) 663-9643



OUTLINE



- PURPOSE
- PEO TSC VV&A PROCESS
- GENERAL GUIDELINES
- SIX-STEP DESIGNATION PROCESS
GUIDELINE
- SUMMARY

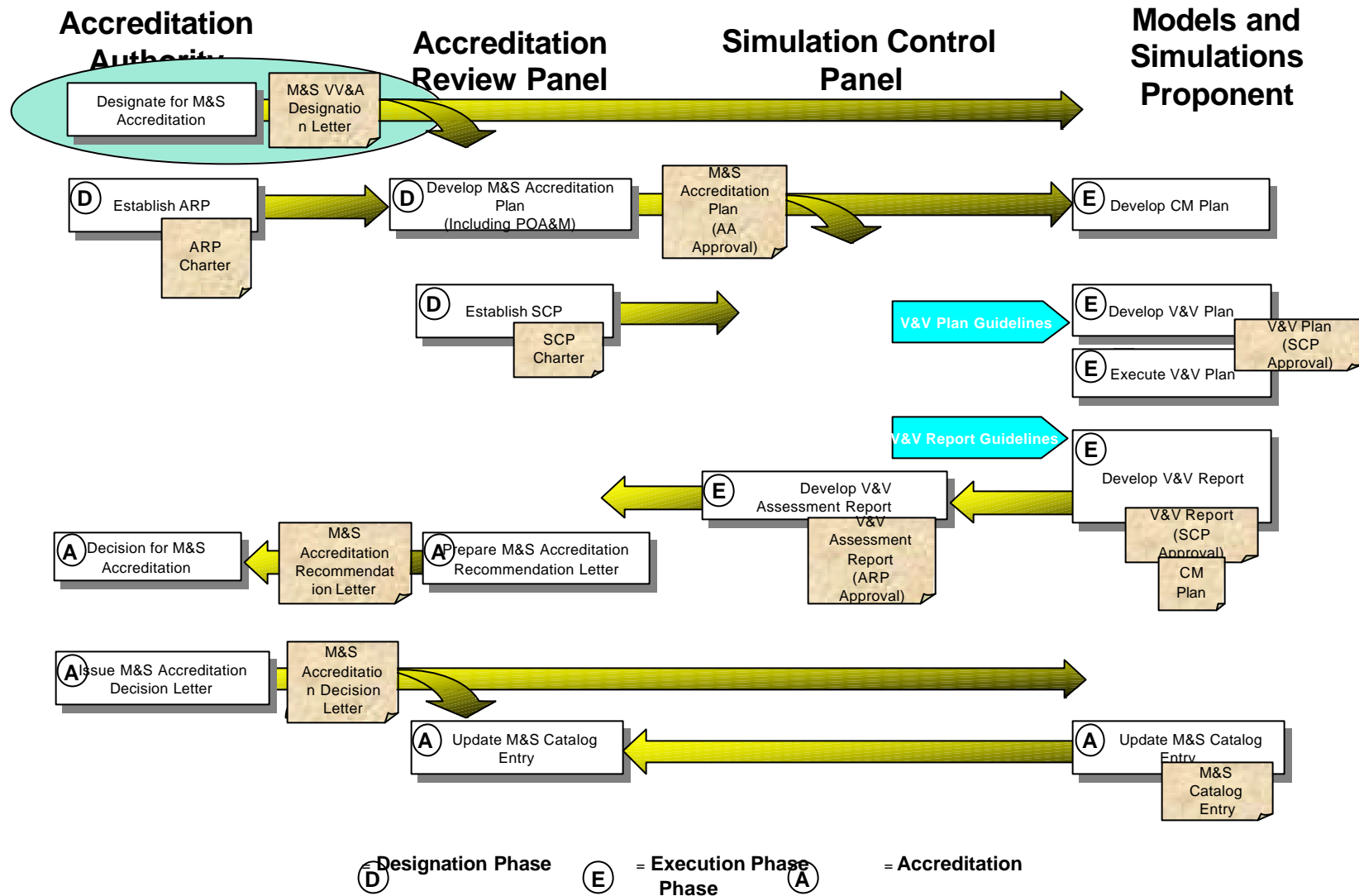


PURPOSE

- Facilitate The Discussion On M&S Designation For Accreditation Within PEO TSC
- To Propose A Six-Step M&S VV&A Designation Process For Inclusion Into The Initial Draft Of The PEO TSC M&S VV&A Guidelines



PEO TSC M&S VV&A Process Designation Highlighted





M&S VV&A DESIGNATION OVERVIEW



- DEFINITION:

The Purpose Of M&S VV&A Designation Is For The User And The Owner/Developer **To Agree** That The M&S Selected **Is Capable Of Satisfying** The Specified Need, And There Are **Sufficient Resources** To Complete Accreditation

- Each Program Office Will Have Specific Variations On Designating M&S, But These Guidelines Should Provide A Basis For Understanding
- Two Common Scenarios Initiating Designation:
 - Program Office Initiation: The program office determines the potential need for an M&S to be accredited
 - External Organization Initiation: An external organization (government or commercial) identifies the need to accredited an M&S and requests accreditation from the program office
 - M&S Developer
 - M&S User



M&S VV&A DESIGNATION GENERAL GUIDELINES



- For Those Requests Originating With An External Organization, Each Program Office Should Develop An *M&S Accreditation Designation Request Form* Which Will Provide The Necessary Information For The Program Office To Process The Designation Request
- M&S Listed In A Systems Requirements Document (SRD) Or Test and Evaluation Master Plan (TEMP) Should Be Considered For Designation
- Requesting Organizations Should Attempt To Establish Accreditation At A Lower Level Than The Program Office If Their Specific Intended Use Supports A Subordinate Organization's Delegated Responsibility.



DESIGNATION PROCESS OVERVIEW



1. Identify Need
2. Identify Sponsor
3. Establish Requirements
4. Understand M&S Functionality
5. Develop Plan Of Action And Milestones (POA&M)
6. Make Designation Decision



DESIGNATION PROCESS

1. IDENTIFY NEED



- PURPOSE:

Define The Specific Intended Use And Establish The Necessity Of Accreditation

- Be As Detailed As Possible In Defining Specific Intended Use
 - Is commonly an iterative process with user
 - This supports latter requirements definition and keeping the V&V activity focused upon the specific use
- Some Reasons For Accreditation Are Well Established:
 - DoD Acquisition Organizations (DAB, JROC, DoD Budgeting System)
 - Acquisition Testing and Training (Joint Testing/Exercises, OT)
 - Large Amount Of Funding Invested Or Assess Risk To Human Life
 - External Release From Navy
- Some Reasons For Accreditation Are Not Well Established:
 - DT&E
 - System Development
 - Contractor Testing



DESIGNATION PROCESS

2. IDENTIFY SPONSOR



- PURPOSE:
Establish The Accreditation Authority (AA) Who Will Be Responsible For Funding And Approving Results
- Explain The Overall VV&A Process To The AA
- Explain The Specific Intended Uses And The Need For Accreditation
- Provide A Date For And A List Of The Data That Will Support A Designation Recommendation



DESIGNATION PROCESS

3. ESTABLISH REQUIREMENTS

- PURPOSE:

Document Usage And Initial Functionality Requirements To Support The Specific Intended Use

- Review Application User Requirement Documents Or Interview Application User To Refine Usage And Functionality Requirements
- Usage Requirements Might Include:
 - Availability/Releaseability
 - Training
 - Documents
- Functionality Requirements Might Include:
 - Interaction With Other Simulations
 - Inputs/Outputs
 - Algorithms
 - DX/DR



DESIGNATION PROCESS



4. Understand M&S Capabilities

- **PURPOSE:**

Document The Current M&S Capabilities As They Support The Defined M&S Requirements To Assess How Well The M&S To Supports the Specific Intended Use

- Provide M&S Requirements To MSP(s)
- Have The MSP(s) Provide A Brief Description Of The M&S To Include, But Not Limited To: History Of Usage, Current Functionality, Sources of Data, Configuration Management, Documentation, Previous V&V, Existing V&V Data Which Could Support Specific Intended Use, Availability/Releaseability
- Trace The M&S Capabilities To The M&S Requirements With Assistance Of MSP(s)
- Assess The Extent The M&S Satisfies The M&S Requirements



DESIGNATION PROCESS

5. Develop POA&M



- PURPOSE:
Develop An Overall POA&M To Quantify The Programmatic Issues
- Ensure The MSP(s) Understands Their Responsibilities (i.e., Documents, Panels) to Support The Overall VV&A Process
- Discuss And Gain Agreement With MSP(s) On Expected V&V Methods
- Request POA&M From MSP(s) Stating At Least:
 - Date Needed And Expected Decision Date
 - Specific Intended Use And M&S Requirements
 - V&V Expectations
- Add Estimate of Non-MSP VV&A Costs And Schedule Impacts (i.e., VV&A support, ARP/SCP members)
- If Multiple M&S Are Available, Select Most Favorable Based Upon Coverage Of M&S Requirements And Cost



DESIGNATION PROCESS

6. Make Designation Decision



- PURPOSE:
Use Technical And Programmatic Assessments To Designate M&S For Accreditation
- Provide AA With:
 - Technical And Programmatic Assessments
 - Selection Rationale
 - Designation Recommendation
- If Multiple M&S Were Considered, Provide Denial Letter To M&S Not Selected
- If AA Approves Designation:
 - Draft Designation Letter For AA Signature
 - Distribute Designation Letter To ARP And MSP(s)



SUMMARY



- The Specific Designation Process For A Program Office May Vary Based Upon Differences In The Sponsor, Requirements, And Programmatic
- Any Program Office M&S VV&A Designation Process Should At A Minimum Address The Six Steps Suggested
- Propose This Six-Step M&S VV&A Designation Process Be Included In The Initial Draft PEO TSC M&S VV&A Guidelines



PROGRAM OFFICE M&S ACCREDITATION DESIGNATION REQUEST FORM



[COVER LETTER]

From: <Requesting Organization Authority>

To: Director of Modeling and Simulation (Code)
Program Office
{address info}

Date: <date of submission>

Subj: Program Office M&S Accreditation Designation Request for <M&S Name>

1. In accordance with the Program Office M&S Accreditation Plan, <organization name> requests designation for accreditation of the <M&S Name>. A completed Program Office Accreditation Designation Request Form is attached.
2. My technical point of contact for this request is <Technical POC>.

<Requesting Organization Authority Signature>

M&S name: Official name, colloquial name, and acronym of M&S

Developer: M&S developer organization, voice, email and POC name

Users: users outside the M&S developer with organization, voice, email
and POC name

Brief Description: One or two paragraphs describing the M&S main capabilities

Brief Development and Use History: If new simulation, enter 'New Development'

Specific Intended Use(s): Specific intended use if accredited, prefer traceability
to documented requirements or tasking

Available Documentation: Specifications, design documents etc, available for
reference during VV&A. Remember, a CM plan is
necessary for accreditation.

Previous VV&A: Previous VV&A history or VV&A of predecessor M&S

Accreditation Timeframe Requested and Rationale (based on usage need):

Provide any time considerations and constraints